

Patent Claims

1. Regulatory DNA sequences for the gene for the human catalytic telomerase subunit.

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2. DNA sequences according to Claim 1, characterized in that the sequences are intron sequences in accordance with SEQ ID NO 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and/or 20 or fragments of these sequences which have a regulatory effect.

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3. DNA sequences according to Claim 1, characterized in that the sequences are the 5'-flanking regulatory DNA sequence for the gene for the human catalytic telomerase subunit as depicted in Fig. 10 (SEQ ID NO 3), or fragments of this DNA sequence which have a regulatory effect.

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4. Recombinant construct which contains a DNA sequence according to one of Claims 1 to 3.

5. Recombinant construct according to Claim 4, characterized in that it additionally contains one or more DNA sequences which encode polypeptides or proteins.

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6. Vector which contains a recombinant construct according to Claim 4 or 5.

7. Use of recombinant constructs or vectors according to one of Claims 4 to 6 for preparing medicaments.

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8. Recombinant host cells which harbour recombinant constructs or vectors according to one of Claims 4 to 6.

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- 5 9. Process for identifying substances which affect the promoter activity, silencer activity or enhancer activity of the human catalytic telomerase subunit, comprising the following steps:
- 10 A. adding a candidate substance to a host cell which harbours DNA sequences according to one of Claims 1 to 3, which sequences are functionally linked to a reporter gene, and
- 10 B. measuring the effect of the substance on expression of the reporter gene.
- 15 10. Process for identifying factors which bind specifically to the DNA according to one of Claims 1 to 3, or to fragments thereof, characterized in that an expression cDNA library is screened using a DNA sequence according to one of Claims 1 to 3, or subfragments of widely differing length, as the probe.
- 20 11. Transgenic animals which harbour recombinant constructs or vectors according to Claims 4 to 6.
- 20 12. Process for detecting telomerase-associated conditions in a patient, comprising the following steps:
- 25 A. incubating a recombinant construct or vector according to Claims 4 to 6, which additionally contains a reporter gene, with body fluids or cell samples,
- B. detecting the activity of the reporter gene in order to obtain a diagnostic value, and

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- C. comparing the diagnostic value with standard values for the reporter gene construct in standardized normal cells or body fluids of the same type as the test sample.

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